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ABSTRACT

Data reported in this paper are drawn from The American College Testing Program (ACT) files of student records collected over the five year period from 1970-71 to 1974-75 through administration of the ACT Assessment Program. The data from 1970-71 and 1971-72 represent a five percent random sample and the data from 1972-73, 1973-74, and 1974-75, a ten percent random sample of students tested on the first four national test dates each year. Included in the students' records are their ACT test scores and self-reported high school grades, and their responses to the ACT Student Profile Section (SPS), which contains some 200 items about vocational plans, out-of-class high school accomplishments, educational needs, extracurricular plans, and general biographical information. All students who write the ACT Assessment complete the SPS. Three major categories of trend data based on ACT test scores and on selected elements from the SPS are reported in subsequent sections of this paper. These are trends in students' academic abilities, background characteristics (e.g., sex, race, and socioeconomic status), and educational plans and goals. Findings are summarized and some interpretations of their implications are offered. (Author/MV)

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TRENDS IN THE ACADEMIC ABILITIES, BACKGROUND CHARACTERISTICS, AND EDUCATIONAL AND VOCATIONAL PLANS OF COLLEGE-BOUND STUDENTS: 1970-71 TO 1974-75

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ABSTRACT

The past 5 years have been a time of dramatic political, social, and educational change. For this reason, it is important to document trends and changes that have occurred with respect to students who have taken the ACT Assessment. This research report describes changes that occurred during the 5-year period, 1970-71 to 1974-75, in three areas: academic abilities, background characteristics, and educational plans and goals. Implications of these changes are also discussed.

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TRENDS IN THE ACADEMIC ABILITIES, BACKGROUND CHARACTERISTICS, AND EDUCATIONAL AND VOCATIONAL PLANS OF COLLEGE-BOUND STUDENTS: 1970-71 TO 1974-75

E. James Maxey,
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Gary R. Hanson

The 5-year period from 1970-71 to 1974-75 has been a time of unprecedented political, social, and economic change. Watergate, the Vietnam war, the energy crisis, inflation, high unemployment rate, changing attitudes about drugs, and increased educational and economic opportunities for women and minority groups have all contributed to that change. All segments of society have been affected by these events. This paper focuses on changes in the attributes of ACT-tested college-bound students which may be related to those events.

Although the extent and nature of the impact of these influences on students are not fully known, data which provide information about changes in students' abilities, backgrounds, and educational plans over the same 5-year period are available. Causal relationships between social change and changes in these student-related variables cannot be inferred from these data. On the basis of these data, however, some "armchair" speculations on the nature of the relationship can be made.

The data reported in subsequent sections of this paper are drawn from The American College Testing Program (ACT) files of student records collected over the past 5 years through administration of the ACT Assessment Program. The data from 1970-71 and 1971-72 represent a 5% random sample and the data from 1972-73, 1973-74, and 1974-75, a 10% random sample of students tested on the first four national test dates each year. Included in the students' records are their ACT test scores and self-reported high school grades, and their responses to the ACT Student Profile Section (SPS), which contains some 200 items about vocational plans, out-of-class high school accomplishments, educational needs, extracurricular plans, and general biographical information. All students who write the ACT Assessment complete the SPS.

Three major categories of trend data based on ACT test scores and on selected elements from the SPS are reported in subsequent sections of this paper. These are trends in students'

1. academic abilities
2. background characteristics (e.g., sex, race, and socioeconomic status)
3. educational plans and goals

The paper summarizes findings and offers some interpretations of their implications.

Among the important indicators of change are trends in students' academic performance and in the kinds of instructional experiences which they elect. In this section, these indicators are examined using data on college-bound students who wrote the ACT Assessment. Academic performance is considered from the perspective both of high school grades and special instructional experiences and of performance on the ACT Assessment.

Trends in High School Average

When students write the ACT Assessment, they report the last grade earned prior to the senior year in high school in four subjects: English, mathematics, social studies, and natural sciences. The arithmetic average of these four grades, or High School Average (HSA), is used as a predictor of probable success during the first semester of college. Table 1 indicates the distribution of HSA for ACT-tested students each year from 1970-71 through 1974-75.

The mean HSA increased by at least .05 on a 4-point scale each year. Over the 5-year period, the mean HSA rose from 2.67 to 2.91, an increase of .24. Contributing to that overall increase was the .28 increase in men's mean HSA (from 2.53 to 2.81) and the .19 increase in women's mean HSA (from 2.81 to 3.00). Interestingly, the increase in mean HSA was not accompanied by any significant change in the standard deviation of that index.

The increase in HSA can be observed not only among college-bound students but also among the students in that group who enrolled in college and remained at least 1 year. Normative data from the ACT Standard Research Service (not shown here) indicate that the HSA for the first-year college students has increased from 2.65 to 2.79 over the last 3 years.

Trends in Student Participation in High School Honors Courses

To determine whether there has been a change in students' participation in special high school honors courses over the past 5 years, data were collected from students' responses to an item on the ACT Student Profile Section. That item and all others referred to in this paper are included as an appendix to this report.

As indicated in Table 2, there has been no decline in the popularity of high school honors courses among ACT-tested students over the past 5 years. To the contrary, interest in such courses increased slightly (up from 36% to 38% participation).

Interestingly, participation in high school honors courses has increased significantly for men over the 5-year period but has remained relatively constant for women. Moreover, although the proportion of college-bound women enrolled in honors courses in the early 1970s exceeded the proportion of men enrolled in such courses, by the mid-1970s this phenomenon reversed itself. For example, in 1974-75 46% of the college-bound men and 37% of the college-bound women were enrolled in such courses. The overall effect of the shifts in enrollment in these courses has been a modest increase in the total percentages of students involved in high school honors courses.

In recent years, there has been considerable speculation in the popular press and among educators that more and more students are looking with disdain on a college education or, at least, are not nearly so concerned as they once were about intensive academic preparation for college. This latter attitude is consistent with reports of dwindling college enrollments and with the establishment of open-door admissions policies at many colleges. These influences appear to have had no negative effect on participation in high school honors courses.

ACT Test Scores

Table 3 reports mean ACT test scores over the 5-year period of the national samples described earlier. The data indicate that Composite test scores have declined by about .6 from 1970-71 to 1974-75. A decline of this magnitude is sufficiently large to rule out chance fluctuations. The decline in mean Composite scores coincides with a general increase in the proportion of women tested and a corresponding decline in the mean Composite score of women as a subgroup over the 5 years. Men's scores have remained relatively constant over that same period. Also of interest is the trend toward an increase in standard deviation from year to year.

When test scores are studied by content area, the data show declines in all areas except Natural Sciences, which increased by .6 of a standard score. Social Studies showed the greatest decline, with a drop of 1.3 standard scores. The mean scores of women declined more than the mean scores of men on all subtests.

TABLE 1

Distributions of High School Averages (Based on Four Self-Reported Grades) for National Samples of College-Bound Students Tested from 1970-71 to 1974-75 (In Percentages)

	1970-71			1971-72			1972-73			1973-74			1974-75		
HSA	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
3.50-4.00	12	21	17	16	23	19	17	26	22	20	29	25	23	31	27
2.50-3.49	43	52	48	45	52	49	48	52	50	50	52	51	50	51	50
1.50-2.49	40	26	33	36	24	30	32	21	26	28	19	23	26	17	21
0.50-1.49	4	1	3	3	1	2	3	1	2	2	1	1	2	1	1
0.00-0.49	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean	2.53	2.81	2.67	2.62	2.86	2.74	2.69	2.92	2.81	2.76	2.96	2.86	2.81	3.00	2.91
S.D.	0.69	0.65	0.68	0.69	0.65	0.68	0.68	0.65	0.68	0.68	0.64	0.67	0.69	0.64	0.67
N	18,705	18,583	37,288	15,371	16,028	31,399	32,875	35,418	68,293	32,565	35,846	68,411	29,707	33,854	63,561

TABLE 2

Distributions of Participation in High School Honors Courses for National Samples of College-Bound Students Tested from 1970-71 to 1974-75 (In Percentages)

	1970-71			1971-72			1972-73			1973-74			1974-75		
Participation	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Yes	34	39	36	35	37	36	35	36	36	44	43	43	46	37	38
No	66	62	64	66	63	64	65	63	64	56	57	57	61	62	62
N	19,766	19,844	39,610	15,627	16,693	32,320	33,422	36,837	70,259	35,068	38,927	73,995	32,932	38,511	71,443

TABLE 3

Distributions of ACT Assessment Scores for National Samples of College-Bound Students Tested from 1970-71 to 1974-75 (In Percentages)

		1970-71			1971-72			1972-73			1973-74			1974-75		
Test Score	**Interval**	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
English	26-36	4	7	6	4	7	6	4	7	6	4	7	5	4	6	5
	21-25	25	36	31	24	33	29	26	34	30	24	32	28	24	31	28
	16-20	37	35	36	38	37	38	37	35	36	37	36	37	37	35	36
	1-15	35	22	28	34	22	28	33	23	28	35	25	30	35	27	31
	Mean	17.1	19.0	18.0	17.0	18.7	17.9	17.3	18.9	18.1	17.1	18.6	17.9	17.1	18.3	17.7
	S.D.	5.5	5.3	5.5	5.5	5.3	5.5	5.3	5.1	5.3	5.2	5.1	5.2	5.2	5.2	5.3
Mathematics	26-36	28	18	23	28	18	23	28	18	23	27	15	21	27	15	21
	21-25	19	17	18	18	15	16	19	17	18	20	16	18	19	15	17
	16-20	24	26	25	28	31	29	27	30	29	27	29	28	22	23	22
	1-15	28	39	34	26	37	32	25	35	30	27	40	34	32	47	40
	Mean	20.2	18.0	19.1	20.1	17.7	18.8	20.2	18.0	19.1	19.7	17.1	18.3	19.3	16.2	17.6
	S.D.	7.1	6.9	7.1	7.2	6.9	7.2	7.2	7.0	7.2	7.4	7.2	7.4	7.9	7.6	7.9
Social Studies	26-36	19	16	17	21	16	18	22	16	19	22	15	18	21	12	16
	21-25	30	30	30	29	29	30	28	27	28	30	27	29	28	24	26
	16-20	21	22	21	17	18	17	14	16	15	14	15	14	13	14	13
	1-15	31	33	32	33	37	35	35	41	39	34	43	39	37	50	44
	Mean	19.0	18.4	18.7	19.1	18.2	18.6	19.0	17.7	18.3	19.1	17.3	18.1	18.7	16.4	17.4
	S.D.	7.1	7.0	7.0	7.2	7.1	7.2	7.5	7.4	7.4	7.6	7.5	7.6	7.5	7.3	7.5
Natural Sciences	26-36	32	22	27	33	21	27	34	23	28	35	18	26	36	21	28
	21-25	19	19	19	22	22	22	19	19	19	24	23	24	24	23	23
	16-20	29	33	31	26	31	28	26	32	30	24	31	28	23	29	26
	1-15	21	27	24	19	27	23	20	26	23	18	28	23	17	27	22
	Mean	21.3	19.7	20.5	21.6	19.6	20.6	21.7	19.9	20.8	22.2	19.6	20.8	22.4	20.0	21.1
	S.D.	6.4	6.0	6.3	6.5	6.1	6.4	6.5	6.0	6.3	6.5	5.9	6.4	6.4	6.0	6.3
Composite	26-36	16	12	14	17	12	14	18	13	15	18	11	14	17	10	14
	21-25	29	28	28	29	26	28	29	26	27	29	25	27	28	23	26
	16-20	29	33	31	28	32	30	27	30	29	27	31	29	27	29	28
	1-15	26	28	27	26	30	28	26	30	28	26	33	30	27	37	33
	Mean	19.5	18.9	19.2	19.6	18.7	19.1	19.7	18.8	19.2	19.7	18.2	18.9	19.5	17.8	18.6
	S.D.	5.6	5.4	5.5	5.7	5.4	5.6	5.8	5.5	5.7	5.8	5.5	5.7	5.9	5.6	5.8
N		20,082	20,059	40,141	16,501	17,364	33,865	35,350	38,394	73,744	35,068	38,927	73,995	32,932	38,511	71,443

Another significant finding revealed by the data in Table 3 is that the proportion of students with scores in the highest interval of the score scale (26-36) has remained essentially stable over the past 5 years. At the same time, the proportion of students scoring in the lowest interval of the score scale (1-15) has increased somewhat, suggesting a trend towards a slightly less able group of students taking the tests in recent years.

Summary

The increases in HSA and declines in ACT test scores reported above are consistent with earlier findings (Ferguson & Maxey, 1976; Munday, 1976). On the surface, these two trends appear to contradict one another, particularly when one is striving to develop a coherent statement of trends in the academic abilities of college-bound students. In discussing the relationship of these trends, however, Ferguson and Maxey (1975) attributed the discrepancies both to a "lowering of grading standards" and to an actual decline in test scores brought about in part by greater diversity in the academic abilities of students taking the ACT Assessment.

Trends in Selected Student Background Characteristics

In this section, trends in sex, racial/ethnic background, and indications of socioeconomic status of the college-bound student population described earlier are discussed.

Sex

The percentage of women taking the ACT Assessment has grown steadily during the last 5 years. In 1970-71, 50% of the students tested were women; in 1974-75, 54% were women. This increase may be due in part to a decline in the number of young men who choose to attend college and an increase in the number who enter the service or take full-time employment instead. The increase may also be due in part to a wider variety of women seeking college as a means of improving their role in life. These results are shown in Table 4.

Racial/Ethnic Background

As reported in Table 5, the proportions of minority college-bound students have remained very stable for the 5-year period. About 7% are Afro-American Black, 2% are Mexican/Spanish-speaking American, about 1% are American Indian, and 1% are Oriental American. Some variation has occurred in the proportion of students who elect to not respond, but generally about 90% of the students do respond to the item. The data indicate that there has been very little change in the racial-ethnic composition of the ACT-tested college-bound student population since 1970-71. These data differ somewhat from the initial rise and subsequent decline in the percentage of Blacks found by W. Sedlacek, M. Strader, and G. Brooks, Jr. (1974).

TABLE 4

Distributions by Sex for National Samples of College-Bound Students Tested from 1970-71 to 1974-75 (In Percentages)

Sex	1970-71	1971-72	1972-73	1973-74	1974-75
Males	50	49	48	47	46
Females	50	51	52	53	54
N	40,141	33,865	73,744	73,995	71,443

TABLE 5

Distributions of Racial-Ethnic Background for National Samples of College-Bound Students Tested from 1970-71 to 1974-75 (In Percentages)

Racial-Ethnic Background	1970-71	1971-72	1972-73	1973-74	1974-75
Afro-American/Black	6	7	7	7	7
American Indian	1	1	1	3	1
Caucasian American	79	81	79	73	77
Mexican/Spanish-Speaking American	2	2	2	2	2
Oriental American	2	1	1	1	1
Other or I prefer not to respond	10	8	10	14	11
N	38,405	32,812	71,315	69,454	65,960

Variables Related to Socioeconomic Status

The general socioeconomic status (SES) of college-bound students is a variable significant to the study of changes in student characteristics over the past 5 years. Trends in two general indicators of SES, self-reported family income and plans to seek financial assistance, are discussed below.

Self-Reported Family Income

Table 6 shows distributions of self-reported family income over the past 5 years for the students included in this study.

Because the wording of the SPS item has changed during the past 5 years, percentages are reported in two ways. The first percentage in each cell is based on both respondents and nonrespondents. The second percentage (in parentheses) in each cell is based *only* on students who responded to the item. About 31-34% of the college-bound students who take the ACT Assessment come from families whose incomes are between $7,500 and $14,999. Over the 5-year period, the percentage of students who reported family incomes over $15,000 has increased from 15% to over 29%. This shift in family income is probably the result both of the inflation economy of the last 5 years and of real increases in family income of the typical ACT examinee.

Students' Plans to Obtain Financial Assistance

Two items in the SPS provide information about students' need and plans for obtaining financial assistance for college. The first item asks students whether they expect to apply for financial aid to meet college expenses. The second asks whether they expect to work while in college in order to contribute to their expenses. Students' responses to those items are reported in Table 7.

Over the 5-year period, the proportion of students who plan to apply for financial aid has increased from 58% to 61%. The percentage of students planning to work while in college increased substantially from 42% to 61% in the 3-year period for which data were available. The availability of the Basic Educational Opportunity Grant Program (BEOG) may be one reason for this increased interest in financial aid. Growing interest in both sources of financial support is probably also related, in part, to financial strains caused by inflation in the mid 1970s.

TABLE 6

Distributions of Self-Reported Family Income for National Samples of College-Bound Students Tested from 1970-71 to 1974-75 (In Percentages)

Income	1970-71	1971-72	1972-73	1973-74	1974-75
Less than $3,000	3(3)	3(3)	4(4)	4(4)	3(3)
$ 3,000 - $ 7,499	15(16)	14(14)	12(13)	13(13)	11(11)
$ 7,500 - $14,999	32(32)	31(31)	32(33)	34(35)	32(34)
$15,000 - $19,999	8(9)	7(7)	8(8)	9(9)	13(14)
$20,000 - Over	7(7)	7(8)	9(9)	11(11)	16(17)
Consider this confidential	5(5)	5(5)	5(5)	26(27)	20(20)
Do not know[a]	27(28)	30(31)	29(29)	-- --	-- --
No response	2 --	1 --	1 --	3 --	4 --
N includes percentages in parentheses	39,474	33,411	72,821	70,425	66,161
No response	667	454	923	2,260	2,852
Total N	40,141	33,865	73,744	72,685	69,013

[a]This response option was dropped starting with the 1973-74 testing year. This change may account for the increases in percentages of "I consider this information confidential" responses and in the number of students who do not respond.

TABLE 7

Distributions of Plans to Obtain Financial Assistance for National Samples of College-Bound Students Tested from 1970-71 to 1974-75 (In Percentages)

Type of Financial Assistance	1970-71	1971-72	1972-73	1973-74	1974-75
College or government aid (i.e. BEOG)	58	59	60	56	61
Work while in college[a]	--	--	42	59	61
N	39,854	33,631	73,744	72,685	69,013

[a]This item was first included in the SPS in 1972-73.

Trends in Educational and Vocational Plans

In a time of substantial social change, it seems reasonable to expect corresponding changes in the way students view their world. Such changes should be reflected in students' educational and vocational plans and goals. This section focuses on trends in students' responses to items related to the academic aspects of college life and vocational plans, data that should shed some light on that hypothesis.

Academic Plans in College

Full-time/part-time status. The data in Table 8 indicate that about 90% of the students who write the ACT Assessment plan to enroll in college as full-time students. The ACT Assessment has traditionally been taken by college-bound high school students who are likely to attend college shortly after high school graduation, and the great majority of these students plan full-time enrollment. Apparently, little of what has happened in recent years has affected the proportion of students who prefer to attend college on a full-time basis.

Educational major. In 1970-71, the three most popular educational majors were: 1) Business, Political, and Persuasive Fields; 2) Educational Fields; 3) Health Fields. During the 5-year period, interest in health fields has increased steadily, while interest in education fields has decreased steadily. This trend is probably closely related to the nature of the vocational opportunities in these fields during the last 5 years. Interest in scientific, agricultural, and engineering fields has remained stable over the same period. During each of the last 4 years, about 7-8% of the students tested have been undecided about their educational major at the time they completed the ACT Assessment. These data are reported in Table 9.

Vocational plans. Data reported above suggest considerable change over the 5-year period in trends in choice of college major. Table 10 provides data on students' vocational plans. As might be expected, interest in the health fields as a vocation has increased steadily and interest in the educational fields has decreased steadily over the 5-year period. These trends probably reflect students' awareness of economic reality. Students seem to know where the jobs are available. Interest in vocations in the social sciences and in scientific, agricultural, and engineering fields has remained about the same over the 5-year period.

Interest in special college programs. Table 11 reports trends in students' interests in special educational programs. Over the 5-year period, interest in advanced placement has increased steadily. About 5% more of the students tested in 1974-75 were interested in advanced placement in English than was true in 1970-71; about 6% more were interested in advanced placement in mathematics, and about 7% more were interested in advanced placement in foreign language. Interest in honors courses and independent study has decreased over the 5-year period. Only 2 of every 10 students were interested in honors courses in 1974-75; the interest in independent study declined from 51% to 43% of the students tested.

TABLE 8

Distributions of Student Status Plans for National Samples of College-Bound Students Tested from 1970-71 to 1974-75 (In Percentages)

Student Status Plans	1970-71	1971-72	1972-73	1973-74	1974-75
Full-time	91	90	90	89	91
Part-time	9	10	10	11	8
N	39,427	32,279	70,299	72,594	68,399

TABLE 9

Distributions of Planned Educational Major for National Samples of College-Bound Students Tested from 1970-71 to 1974-75 (In Percentages)

Educational Major	1970-71			1971-72			1972-73			1973-74			1974-75		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Educational Fields	9	22	16	9	20	15	8	18	13	7	17	13	6	16	12
Social Science and Religious Fields	7	13	10	7	13	10	7	12	10	7	10	9	6	10	9
Business, Political, and Persuasive Fields	23	16	19	25	18	22	24	18	21	23	20	21	21	20	21
Scientific Fields	9	5	7	8	4	6	8	4	6	9	5	7	8	5	6
Agriculture and Forestry Fields	6	0	3	7	1	4	7	1	4	8	2	5	8	2	5
Health Fields	7	16	12	9	22	16	11	25	19	10	24	17	10	25	19
Arts and Humanities Fields	9	14	11	9	13	11	10	13	11	13	14	13	13	13	13
Engineering Fields	12	1	6	9	0	4	9	0	4	13	1	6	13	1	6
Trade, Industrial, and Technical Fields/or Not Listed	7	2	5	8	2	5	7	1	4	5	0	2	6	0	3
Undecided	12	11	11	7	7	7	8	7	8	7	6	7	8	8	8
N	19,897	19,900	39,797	16,343	17,236	33,579	34,964	38,025	72,989	34,759	38,612	73,371	31,373	36,902	68,275

TABLE 10

Distributions of Planned Occupational Choice for National Samples of College-Bound Students Tested from 1970-71 to 1974-75 (In Percentages)

	1970-71			1971-72			1972-73			1973-74			1974-75		
Vocational Field	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Educational Fields	8	23	16	6	18	12	6	17	12	6	18	12	6	17	12
Social Science and Religious Fields	7	12	9	8	13	10	7	12	9	6	11	9	5	11	9
Business, Political, and Persuasive Fields	22	15	19	22	16	19	23	18	21	22	20	21	22	20	21
Scientific Fields	6	3	4	6	3	5	5	3	4	6	3	4	5	3	4
Agriculture and Forestry Fields	7	0	4	7	1	4	7	1	4	8	2	5	8	2	5
Health Fields	8	18	13	10	22	16	12	26	19	11	26	19	11	26	19
Arts and Humanities Fields	8	9	9	8	10	9	9	10	9	12	12	12	12	12	12
Engineering Fields	10	0	5	8	0	4	9	0	4	12	1	6	12	1	6
Trade, Industrial, and Technical Fields/or Not Listed	18	12	15	19	12	15	10	1	5	7	0	4	8	0	4
Undecided	9	7	8	6	5	5	11	8	9	11	8	9	11	9	10
N	19,577	19,638	39,215	16,146	17,053	33,199	34,658	37,788	72,446	34,524	38,398	72,922	31,573	37,344	68,917

TABLE 11

Distributions of Plans to Pursue Special College Programs for National Samples of College-Bound Students Tested from 1970-71 to 1974-75 (In Percentages)

Program	1970-71	1971-72	1972-73	1973-74	1974-75
Advanced Placement					
English	19	21	21	28	24
Mathematics	14	15	15	22	20
Foreign Language	9	10	9	19	16
Independent Study	51	50	47	49	43
Honors Courses	32	34	34	25	22
N	39,385	32,790	69,635	72,685	69,013

Degree aspirations. Over the 5-year period, as Table 12 indicates, very few changes of any consequence have occurred in the degree aspirations students report. Perhaps the only exceptions have been the small decline in the number of students planning just 1 or 2 years of graduate study and the increase in the proportion of students interested in obtaining a professional degree. All of the trends are essentially the same for women and men.

Nonacademic Plans in College

Two changes in the nonacademic aspects of students' life in college, planned participation in extracurricular activities and plans for college living quarters arrangements, are discussed next. One would expect that both of these dimensions of college life might be affected by the social changes alluded to in the introduction.

Extracurricular activities. For many years ACT has asked students to identify the extracurricular activities in which they plan to participate. College officials use such data to recruit students for campus clubs and programs. Such use of this information helps colleges meet the needs of students, and may reduce attrition and increase student satisfaction. Trends for student interest in extracurricular activities are reported in Table 13. Dashes appear for some elements of the table because some activities were not part of the SPS for all 5 years. The most notable decreases over the past few years appear in interest in political organizations and in racial or ethnic organizations. In the early 1970s, students apparently were much more interested in these activities than they are now. There have been slight increases in interest in instrumental music, vocal music, and dramatics. Students expressed much greater interest in publications in 1974-75 than in 1970-71. Interest in student government, debate, and religious organizations has been rather stable over the 5 years.

Housing in College

As the data in Table 14 indicate, the percentage of students who indicated interest in living in college housing was slightly larger in 1974-75 than in 1970-71 (57% versus 53%). The percentage who preferred to live at home or with relatives was smaller in 1974-75 than in 1970-71. This trend is consistent with recent reports that on many campuses, there are not sufficient facilities for all the students who want to live in college housing.

TABLE 12

Distributions of Educational Degree Aspirations for National Samples of College-Bound Students Tested from 1970-71 to 1974-75 (In Percentages)

Educational Degree	1970-71			1971-72			1972-73			1973-74			1974-75		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Vocational or Technical Program (Less than 2 years)	3	5	4	3	6	4	3	5	4	3	5	4	3	5	4
2-Year College Degree	12	19	15	12	21	16	12	20	16	12	21	17	9	18	14
Bachelor's Degree	41	43	42	39	41	40	40	41	41	39	39	39	42	44	43
1 or 2 Years of Graduate Study	20	18	19	19	18	19	17	16	16	17	15	16	17	14	16
Professional Level Degree	18	8	13	21	8	14	22	10	16	23	13	18	24	14	19
Other	6	7	7	6	7	7	5	6	5	6	7	6	5	5	5
N	19,910	19,884	39,794	16,369	17,224	33,593	35,100	38,135	73,235	34,838	38,634	73,472	31,512	37,008	68,520

TABLE 13

Distributions of Planned College Extracurricular Activities for National Samples of College-Bound Students Tested from 1970-71 to 1974-75 (In Percentages)

	1970-71			1971-72			1972-73			1973-74			1974-75		
Activity	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
Instrumental Music	15	16	15	15	17	16	16	18	17	18	20	20	19	20	19
Vocal Music	12	29	20	12	27	20	12	27	20	14	31	23	15	30	23
Student Government	32	35	33	30	33	31	28	30	29	32	35	33	28	32	30
Publications	18	32	25	18	32	25	25	40	33	28	46	38	26	43	36
Debate	16	13	14	14	12	13	14	11	12	16	14	14	14	13	14
Departmental Clubs	--	--	--	--	--	--	--	--	--	37	52	45	33	46	41
Dramatics	14	28	21	15	27	21	--	--	--	17	33	25	15	31	24
Religious Organizations	25	39	32	26	39	32	24	37	31	28	39	34	25	36	31
Racial or Ethnic Organizations	--	--	--	--	--	--	13	20	17	9	12	10	7	11	9
Intramural Athletics	--	--	--	--	--	--	--	--	--	64	40	51	64	40	52
Varsity Athletics	--	--	--	--	--	--	--	--	--	42	17	29	38	19	30
Political Organizations	28	25	27	28	26	27	26	26	26	19	17	17	16	14	15
Radio-Television	--	--	--	--	--	--	--	--	--	28	18	23	28	19	23
Fraternity, Sorority, or Other Social Clubs	43	48	45	39	46	42	39	44	42	36	45	40	34	44	39
Special Interest Groups	--	--	--	--	--	--	--	--	--	67	71	69	59	65	63
Campus or Community Service Organizations	--	--	--	--	--	--	--	--	--	40	65	53	33	57	45
N	20,017	19,987	40,004	16,446	17,301	33,747	34,146	37,143	71,289	35,068	38,927	73,995	32,932	38,511	71,443

TABLE 14

Distributions of Planned College Living Quarters for National Samples of College-Bound Students Tested from 1970-71 to 1974-75 (In Percentages)

Planned Living Quarters	1970-71			1971-72			1972-73			1973-74			1974-75		
	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
College Housing	50	57	53	51	56	53	53	56	55	54	56	55	57	58	57
Off-Campus Room or Apartment	15	8	11	16	9	13	15	10	12	16	11	14	14	10	12
At Home or with Relatives	36	35	35	34	35	34	32	34	33	30	33	32	29	32	31
N	19,903	19,953	39,856	16,360	17,266	33,626	35,049	38,182	72,231	34,846	38,729	73,575	31,170	36,974	68,144

Summary of Findings and Implications

Trend data have been presented for a selection of variables which collectively suggest some of the changes in the academic abilities, background characteristics, and educational and vocational plans of college-bound students which have occurred in the early to mid 1970s. Several significant trends in each of these areas are summarized below.

Changes in Academic Abilities

Among the most significant trends observed in indicators of students' academic abilities in the 5-year period are the following:

1. The mean High School Average (mean of grades in four subject areas) has increased, while the standard deviations of the HSA distributions have remained constant. Although the mean HSA has increased for both men and women, the increase has been substantially greater for males than for females.

2. A small increase has occurred in the proportion of college-bound students enrolled in high school honors courses. Interest in such courses has grown dramatically (13%) among men but has remained relatively stable for women.

3. Overall, the ACT Composite score has shown a decline, especially for women. The trend toward declining scores has occurred on all the ACT tests except Natural Sciences. In addition, the standard deviations of the tests have tended to increase over the 5-year period, and this reflects greater academic differences among the students who write the ACT Assessment.

Considered together, these trends provide a conflicting picture of the academic characteristics of college-bound students. On the one hand, high school grades and students' participation in honors courses are on the rise; such findings suggest an improvement in the academic skills of college-bound students. On the other hand, ACT test scores in the content areas on which the High School Average is based have declined markedly. Although the data reported in this paper do not resolve the discrepancy with any certainty, the authors are inclined to attribute the increase in HSA to the recent general patterns of grade inflation, and the decline in ACT test scores to a number of factors, including greater variability in the academic abilities of students planning to attend college.

Changes in Background Characteristics

There have been several important changes in the background characteristics of college-bound students:

1. The proportion of women in the population of ACT-tested college-bound students has increased substantially over the 5-year period.

2. The racial-ethnic composition of the population of college-bound students has remained essentially constant; about 80% of the student-tested population is White and about 7% is Black. About 10% of the students who take the ACT fail to respond to the request for racial-ethnic identification.

3. Although the proportion of ACT-tested students from lower income families has declined over the 5-year period, the number of students indicating need for financial assistance, either loans and scholarships or jobs, during this inflationary period has shown a small increase.

Changes in Educational and Vocational Plans

Among trends in students' educational and vocational plans, the following are most significant:

1. Little or no change has occurred in the proportion of college-bound students planning to attend full time.

2. The most popular educational major continues to be business, political, and persuasive fields. Interest in teaching fields has declined and interest in health-related fields has increased. Identical trends appear for vocational choice.

3. The number of students interested in advanced placement has increased; the number interested in independent studies and honor courses has declined.

4. About 43% of the students tested in 1974-75 planned to earn a bachelor's degree, approximately the same percentages as in 1970-71. A larger percentage of students expressed interest in advanced degrees in 1974-75 than in 1970-71.

5. Interest in political and racial-ethnic extracurricular activities has declined; interest in most other extracurricular areas has remained relatively stable.

Implications of Trends

As changes have occurred in American society in the past 5 years, concomitant changes have occurred in American education, specifically in the academic attributes and attitudes of college-bound students. Although the trends cited in this paper confirm that changes have indeed occurred, the extent of the changes is relatively modest. Students who were college bound in 1974-75 appear to differ very little from their 1970-71 counterparts on any significant variables except ACT test scores and HSA. Explanations for changes in test score variables have not yet been documented. Many educators are concerned about decline in standardized test scores and many are investigating the reasons for the trend (see Munday, 1976; Ferguson & Maxey, 1976). This paper provides information about the changing characteristics of the college-bound population of 1975.

References

Ferguson, R. L., & Maxey, E. J., *Trends in the academic performance of high school and college students.* ACT Research Report No. 70. Iowa City, Iowa: The American College Testing Program, 1976.

Munday, L. A., *Declining admissions test scores.* ACT Research Report No. 71. Iowa City, Iowa: The American College Testing Program, 1976.

Sedlacek, W. E., Strader, M. A., & G. C. Brooks, Jr., *A national comparison of universities successful and unsuccessful in enrolling blacks over a five year period.* Research Report No. 3. College Park: University of Maryland, 1974.

APPENDIX

Student Profile Section (SPS) Items

The Student Profile Section items on which the tables in this report are based are listed below as they appeared in the SPS each year during the 5-year period covered by this study.

TABLE 2—Distributions of Participation in High School Honors Courses

1970-71, 1971-72, 1972-73

While in high school I was enrolled in honors, advanced placement, or accelerated course(s).

Yes, applies to me ..... Y
No, does not apply to me ..... N

1973-74, 1974-75

While in high school, I was enrolled in advanced placement, accelerated, or honors courses in the following areas (items 94-98). Use the responses below to answer all the items in this group.

Yes ..... Y
No ..... N

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94. English
95. Mathematics
96. Social studies
97. Natural sciences
98. Foreign language

TABLE 5—Distributions of Racial-Ethnic Background

1970-71, 1971-72

Special educational opportunities are sometimes available to college students from specific racial or ethnic backgrounds. In addition, colleges often need to know the racial background of their students for federal reporting. If your background is listed below and you wish to identify yourself, please respond to this item. *You are not required to provide this information.*

Afro-American/black 1
American Indian 2
Caucasian/white 3
Mexican/Spanish American 4
Oriental American 5
Other or I prefer not to respond 6

1972-73

Some colleges provide educational opportunities for students from specific ethnic backgrounds. In addition, colleges may need to know the ethnic background of their student body for federal reports. ACT releases this information only to those institutions that request it. Thus, the information you provide may or may not be forwarded to a given college. If you wish, please respond to this item. *You are not required to do so.*

Afro-American/black 1
American Indian 2
Caucasian/white 3
Spanish speaking American 4
Oriental American 5
Other or I prefer not to respond 6

1973-74, 1974-75

Colleges often provide special educational programs and opportunities for students from particular racial or ethnic backgrounds. ACT releases this information only to those institutions that request it. If your background is listed below and you wish to identify yourself, please respond to this item. *You are not required to provide this information.*

Afro-American/Black 1
American Indian or native American 2
Caucasian American/White 3
Mexican American or Chicano 4
Oriental American 5
Puerto Rican or Spanish-speaking American 6
Other 7
I prefer not to respond 8

TABLE 6—Distributions of Self-Reported Family Income

1970-71

What do you estimate your family's income to be? (Indicate total income before taxes.)

Less than $3,000 per year 0
$3,000 to $4,999 1
$5,000 to $7,499 2
$7,500 to $9,999 3
$10,000 to $14,999 4
$15,000 to $19,999 5
$20,000 to $24,999 6
$25,000 and over 7
I consider this information confidential 8
I don't know 9

1971-72, 1972-73

To plan financial aid programs for entering students, colleges need to know the financial background of their students. Please estimate as accurately as possible your family's income. (Indicate total income before taxes.)

Less than $3,000 0
$3,000 to $5,999 1
$6,000 to $7,499 2
$7,500 to $8,999 3
$9,000 to $11,999 4
$12,000 to $14,999 5
$15,000 to $19,999 6
$20,000 and over 7
I consider this information confidential 8
I don't know 9

1973-74, 1974-75

Same as 1971-72, 1972-73; however, response 9 was deleted.

TABLE 7—Distributions of Plans to Obtain Financial Assistance

1970-71, 1971-72

Do you expect to apply for financial aid to help meet college expenses?

Yes, during my first year and probably thereafter 1
Yes, but probably not during my first year 2
Probably not 3

1972-73 (Same as above; the following item was also added.)

I need help in finding employment while attending college.

Yes, applies to me 1
No, does not apply to me 2

1973-74, 1974-75

I expect to apply for financial aid to help meet college expenses.

Yes, applies to me 1
No, does not apply to me 2

I expect to work while attending college and would like help in finding employment.

(Same responses as above)

TABLE 8—Distributions of Student Status Plans

1970-71, 1971-72, 1972-73

In my first college term I will enroll as a *full-time* student.

Yes, applies to me ..... Y
No, does not apply to me ..... N

1973-74, 1974-75

I plan to enroll as a

full-time student 1
part-time student 2

TABLE 9—Distributions of Planned Educational Major and TABLE 10—Distributions of Planned Occupational Choice

All Years

This item remained basically the same all 5 years. The students were given a generalized list of majors and asked to indicate their response for each of the questions below by gridding the three-digit code assigned to each major on the list.

Students who were completely undecided were asked to grid 000.

1. Which program of study do you plan to enter?
2. What is your first choice of occupation (vocation)?
3. Many people consider more than one occupation or vocation. What is your second choice?

TABLE 11—Distributions of Plans to Pursue Special College Programs

1970-71, 1971-72, 1972-73

Items 101-114 concern college educational needs you may or may not have. Use the responses below to answer all the items in this group.

Yes, applies to me ..... Y
No, does not apply to me ..... N

101. I am interested in participating in an independent study program.
102. I am interested in participating in a freshman honors program.
103. I want to be considered for advanced placement in English.
104. I want to be considered for advanced placement in mathematics.
105. I want to be considered for advanced placement in a foreign language.

(Items 106-114 do not apply to this table.)

1973-74, 1974-75

The next questions (25-39) relate to special college programs designed for students who want and are able to pursue academic work of an enriched or accelerated nature. Please respond Y or N to each item.

Yes, I am interested and would like to be considered ..... Y
No, I am not interested ..... N

25. Independent study (a program of study with topics chosen by the student, approved by the college and supervised by a professor, often part of an honors program)
26. Freshman honors courses (designed to challenge academically superior students)
27. *Does not apply to this table.*
28. Advanced placement in English
29. Advanced placement in mathematics
30. *Does not apply to this table.*
31. *Does not apply to this table.*
32. Advanced placement in French
33. Advanced placement in German
34. Advanced placement in Spanish
35. Advanced placement in other language

(Responses 32-35 were combined for "Foreign Language" on the table. Items 36-39 do not apply to this table.)

TABLE 12—Distributions of Educational Degree Aspirations

1970-71, 1971-72

What is the highest level of education you expect to complete?

High school diploma 0
Vocational, technical, or certificate program (less than two years) 1
Two-year college degree 2
Bachelor's degree or equivalent..... 3
One or two years of graduate or professional study (MA, MBA, etc.) 4
Doctor of philosophy or doctor of education (PhD or EdD)..... 5
Doctor of medicine or dental surgery (MD or DDS) 6
Law degree (LLB or JD)..... 7
Bachelor of divinity (BD) 8
Other..... 9

1972-73

Item remained the same as above except response #6 changed to:

Doctor of medicine, dental surgery, or veterinary medicine (MD, DDS, or DVM) 6

and response #8 changed to:

Theology degree 8

1973-74, 1974-75

What is the highest level of education you expect to complete?

Vocational or technical program (less than two years) 1
Two-year college degree 2
Bachelor's degree 3
One or two years of graduate study (MA, MBA, etc.)..... 4
Professional level degree (PhD, MD, LLB, or JD) 5
Other..... 6

TABLE 13—Distributions of Planned College Extracurricular Activities

1970-71, 1971-72, 1972-73

Items 28-37 list extracurricular activities that you may or may not wish to participate in at college. Use the responses below to answer all questions in this group:

Yes, I do plan to participate ..... Y
No, I do not plan to participate ..... N

28. Music, instrumental
29. Music, vocal
30. Writing for campus newspaper, yearbook, and the like
31. Student government
32. Debate
* 33. Acting
34. Fraternity or sorority
35. Campus religious group
** 36. Art
37. Campus political organizations

* In 1972-73 this response was changed to "Ethnic organizations."
** In 1972-73 this response was deleted.

1973-74, 1974-75

The next questions (40-55) list student activities you may be interested in at college. Please answer *each* question Y or N.

Yes, I do plan to participate ..... Y
No, I do not plan to participate ..... N

40. Instrumental music
41. Vocal music
42. Student government
43. Publications (newspaper, yearbook, literary magazine)
44. Debate
45. Departmental clubs
46. Dramatics, theater
47. Religious organizations
48. Racial or ethnic organizations
49. Intramural athletics
50. Varsity athletics
51. Political organizations
52. Radio-TV
53. Fraternity or sorority
54. Special-interest groups (ski club, sailing club, judo club, card section, drill team, etc.)
55. Campus or community service organizations

TABLE 14—Distributions of Planned College Living Quarters

1970-71, 1971-72, 1972-73

Where do you expect to live while attending college?

College housing (dormitory, fraternity or sorority, married-student housing) 1
Off-campus room or apartment 2
At home or with relatives..... 3

1973-74, 1974-75

Upon entering college, I plan to live in

residence hall..... 1
off-campus room or apartment 2
parents' or relatives' home..... 3
married student housing..... 4
fraternity or sorority 5

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